CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 77-91

NPDES NO. CA0038067

WASTE DISCHARGE REQUIREMENTS FOR:

SAUSALITO - MARIN CITY SANITARY DISTRICT
MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Board), finds that:

1. Sausalito-Marin City Sanitary District (hereinafter discharger), by application dated January 24, 1977, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. The discharger presently discharges municipal wastewater containing pollutants into San Francisco Bay at a point approximately 750 feet South of the Southerly City limit of Sausalito and 300 feet offshore. (Latitude 37 deg., 50 min., 37 sec.; Longitude 122 deg., 28 min., 3 sec.) The treatment plant provides chemically aided primary treatment.

3. The report of waste discharge describes the existing discharge as follows (Annual Average values):

Average Flow: 1.8 million gallons per day (mgd)
Design Flow: 2.4 million gallons per day (mgd)

Constituents	Milligrams per Liter	Pounds per day
BOD	149	2,240
Suspended Matter	59	886
Chlorine Residual	0.0	0.0

4. This project involves the continued operation of a publicly-owned facility to provide sewerage service with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Administrative Code.

5. The discharger provides wastewater treatment services for the City of Sausalito, Tamalpais Valley County Sanitation District and a portion of Richardson Bay Sanitary District.

6. Section 301(b) of the Federal Water Pollution Control Act Amendments of 1972 requires all publicly-owned treatment plants to achieve effluent limitations based upon secondary treatment no later than July 1, 1977. Secondary treatment has been defined by the EPA Administrator in 40 CFR 133, dated July 26, 1976.

7. The Board intends to consider adoption of an Enforcement Order for Issuance of a Time Schedule for the discharger to insure timely compliance with secondary treatment requirements. The discharger will not meet the secondary treatment standards prescribed by the Federal Act prior to the July 1, 1977 deadline.

8. A Water Quality Control Plan for the San Francisco Bay Basin was adopted by the Board on April 8, 1975. The Basin Plan contains water quality objectives for San Francisco Bay.

9. The beneficial uses of San Francisco Bay are:

   a. Recreation
   b. Industrial water supply
   c. Esthetic enjoyment
   d. Navigation
   e. Preservation and enhancement of fish, shellfish, wildlife, and other aquatic resources.

10. The discharge is presently governed by Waste Discharge Requirements Order Nos. 74-209 and 76-39 which allow discharge to San Francisco Bay.

11. The discharger and interested agencies and persons have been notified of the Board's intent to revise requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

12. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provision of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. <u>Prohibitions</u>:

1. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

2. There shall be no bypass or overflow of untreated wastewater to waters of the State either at the treatment plant or from the collection system.

3. The average dry weather flow shall not exceed 2.4 mgd. Average shall be determined over three consecutive months each year.

B. Effluent Limitations:

1. Effluent discharged into the outfall shall not exceed the following limits.

Constituents	Units	30-Day Average	7-Day Average	Maximum Daily	Instantaneous Maximum
a. Settleable Matter*	ml/l-hr	0.1	-	-	0.2
b. BOD	lbs/day	800	-	1,600	-
	(kg/day)	363	-	726	-
	mg/l	30	45	60	-
c. Suspended Solids	lbs/day	800	-	1,600	-
	(kg/day)	363	-	726	-
	mg/l	30	45	60	-
d. Grease & Oil	lbs/day	267	-	534	-
	(kg/day)	121	-	242	-
	mg/l	10	-	20	-
e. Chlorine Residual	mg/l	-	-	-	0.0

*See B.2 for interim effluent limitation.

2. The following interim effluent limitations shall apply prior to achieving full compliance with B.1.a.:

Settleable matter

The arithmetic average of any six or more samples collected on any day	0.5 ml/l-hr, maximum
80% of all individual samples collected during maximum daily flow over any 30-day period	0.4 ml/l-hr., maximum
Any sample	1.0 ml/l-hr., maximum

3. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

4. The pH of the discharge shall not exceed 9.0 or be less than 6.0.

5. In any representative set of samples, the waste as discharged to the combined outfall shall meet the following limit on toxicity:

The survival of test fishes in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival. Exceptions to this limitation may be granted and revised toxicity requirements established by the Regional Board, pursuant to public hearing, if the discharger can demonstrate to the satisfaction of the Board that the following conditions are met:

1. The waste is discharged through a deepwater outfall which achieves rapid and high initial dilution and that the waste is rapidly rendered nonacutely toxic upon discharge, and

2. The toxicants in the waste are nonconservative constituents which are rapidly decayed in the receiving water; or the toxicants in the waste are conservative constituents for which water quality objectives have been established. The Regional Board will, in such cases, establish effluent mass emission rates for such constituents.

6. Representative samples of the effluent shall not contain constituents in excess of the following limits:[a/]

Constituent	Units of Measurement	50% of time	10% of time
Arsenic	mg/l(kg/day)	0.01(0.091)	0.02(0.182)
Cadmium	mg/l(kg/day)	0.02(0.182)	0.03(0.27)
Total Chromium	mg/l(kg/day)	0.005(0.045)	0.01(0.091)
Copper	mg/l(kg/day)	0.2(1.82)	0.3(2.73)
Lead	mg/l(kg/day)	0.1(0.91)	0.2(1.82)
Mercury	mg/l(kg/day)	0.001(0.009)	0.002(0.018)
Nickel	mg/l(kg/day)	0.1(0.91)	0.2(1.82)
Silver	mg/l(kg/day)	0.02(0.182)	0.04(0.36)
Zinc	mg/l(kg/day)	0.3(2.72)	0.5(4.54)
Cyanide	mg/l(kg/day)	0.1(0.91)	0.2(1.82)
Phenolic Compounds	mg/l(kg/day)	0.5(4.54)	1.0(9.08)
Total Identifiable Chlorinated Hydrocarbons	mg/l[b/]	0.002(0.018)	0.004(0.03)

a/These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

b/Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a. Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b. Dissolved sulfide	0.1 mg/l maximum
c. pH	Variation from natural ambient pH by more than 0.2 pH units.
d. Un-ionized ammonia	0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum
e. Total Coliform organisms	240 MPN/100 ml, median of five consecutive samples maximum 10,000 MPN/100 ml, any single sample, maximum.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order Nos. 74-209 and 76-39, adopted by the Board on December 17, 1974, and May 4, 1976, respectively. Order Nos. 74-209 and 76-39 are hereby rescinded.

2. The discharger shall comply with the following time schedule to assure compliance with the specifications of this Order:

   a. Compliance with Effluent Limitations B.1.a,b,c,d, B.3, B.5, and Receiving Water Limitation C.1.a,c, and C.2.d.

Task	Completion Date
Full Compliance	July 1, 1977

   b. Compliance with effluent limitation B.6:

Task	Completion Date	Report of Compliance Due
Documentation of compliance with effluent limitations	December 1, 1977	December 1, 1977

   This Regional Board will consider amendment of the effluent limitation B.6 if the discharger demonstrates that compliance cannot be achieved through a program acceptable to the Board for source control and pretreatment standards.

   c. The discharger shall comply with all other Effluent and Receiving Water Limitations, Discharge Prohibitions, and Provisions of this Order immediately upon adoption.

3. The discharger shall comply with the Self-Monitoring Program as ordered by the Executive Officer.

4. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except B.3.

5. This Order expires June 1, 1982. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

6. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 19, 1977.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions, Reporting Requirements and Definitions
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Sausalito-Marin City Sanitary District

Marin County

NPDES NO. CA 0038067

ORDER NO. 77-91

CONSISTS OF

PART A

AND

PART B revised July 19, 1977

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same location as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

Station	Description
C-1-U	At a point in San Francisco Bay located along the up current 100 feet from the center of the waste discharge boil.
C-2	At a point in San Francisco Bay located 100 feet southerly from the geometric center of the discharge diffuser.
C-3	At a point in San Francisco Bay located 100 feet easterly from the geometric center of the discharge diffuser.
C-4	At a point in San Francisco Bay located 100 feet northerly from the geometric center of the discharge diffuser.
C-5	At a point in San Francisco Bay located 1000 feet southerly from the point of discharge.
C-6	At a point in San Francisco Bay located 1000 feet northerly from the point of discharge.
C-7	At a point in San Francisco Bay located at the point of discharge from the Main Street pump station bypass.

C-8	At a point in San Francisco Bay located at the point of discharge from the Princess Street pump station bypass.
C-9	At the point of discharge from the bypass located at the south end of the Richardson Bay Bridge.
C-10	At the point of discharge from the Marin City Pump Station bypass.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany the initial reports.)

E. OVERFLOWS AND BYPASSES

Station	Description
OV-1 thru OV-"n" including 0-001 thru 0-004	Bypass or overflows from manholes, pump stations or collection system. Note: Initial SMP report to include map and description of each known bypass or overflow location.
OV-1	At any point in the outfall from the Main Street Pumping Station between the point of discharge and the point at which all waste tributary to that outfall is present.
OV-2	At any point in the outfall from the Princess Street Pumping Station between the point of discharge and the point at which all waste tributary to that outfall is present.
OV-3	At any point in the outfall from the Marin City Pumping Station between the point of discharge and the point at which all waste tributary to that outfall is present.
OV-4	At any point in the outfall from the diversion structure at Richardson Bay Bridge at a point at which all waste tributary to that outfall is present.
	Reporting - Shall be submitted monthly and include date time and period of each overflow or bypass.

II. SCHEDULE OF SAMPLING AND ANALYSES

A. The schedule of sampling and analyses shall be that given as Table I.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 77-91.

2. Does not include the following paragraphs of Part A: C.3, C.5.c.

3. Has been ordered by the Executive Officer on July 19, 1977, and becomes effective immediately.

4. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

TABLE I (1)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D			All ^{C} Sta.	All ^{P} Sta.	^{O} Sta.			
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	Cont	G	O	O			
Flow Rate (mgd)	D			D									
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	W		W										
Chlorine Residual & Dosage (mg/l & kg/day)					2H	or	Cont.						
Settleable Matter (ml/1-hr. & cu. ft./day)		D (2)											
Total Suspended Matter (mg/l & kg/day)	W		W										
Oil & Grease (mg/l & kg/day)	M (4)	M (4)											
Coliform (Total) (MPN/100 ml) per req't					3/W			M (3)					
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste						M							
Ammonia Nitrogen (mg/l & kg/day)			M					2/Y					
Nitrate Nitrogen (mg/l & kg/day)			M					2/Y					
Nitrite Nitrogen (mg/l & kg/day)			M					2/Y					
Total Organic Nitrogen (mg/l & kg/day)			M					2/Y					
Total Phosphate (mg/l & kg/day)			M					2/Y					
Turbidity (Jackson Turbidity Units)								M					
pH (units)		D						M					
Dissolved Oxygen (mg/l and % Saturation)		D						M					
Temperature (°C)		D						M					
Apparent Color (color units)			2W					M					
Secchi Disc (inches)								M					
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)		W						M					
Arsenic (mg/l & kg/day)			3M										
Cadmium (mg/l & kg/day)			3M										
Chromium, Total (mg/l & kg/day)			3M										
Copper (mg/l & kg/day)			3M										
Cyanide (mg/l & kg/day)			3M										
Silver (mg/l & kg/day			3M										
Lead (mg/l & kg/day)			3M										

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D			All ^{C} Sta.	All ^{P} Sta.	O Sta.			
TYPE OF SAMPLE	C-24	G	C-24	Cont.	G	C-24	Cont	G	O	O			
Mercury (mg/l & kg/day)			3M										
Nickel (mg/l & kg/day)			3M										
Zinc (mg/l & kg/day)			3M										
PHENOLIC COMPOUNDS (mg/l & kg/day)			3M										
All Applicable Standard Observations		D						M	W	E			
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)			3M										
IRON (mg/l & kg/day)			3M										
Un-ionized Ammonia as N (mg/l)								M					

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES

(1) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, Total suspended solids, oil and grease (Influent & Effluent)

2. Grab sample for Coliform (Total and Fecal), Settleable matter, and chlorine residual (continuous or every two hours)

3. Continuous monitoring of flow

(2) Every second week six samples shall be taken on one day, coincident with composite sampling.

(3) 5 samples to be taken at stations C-1-U thru C-6.

(4) Samples taken for oil and grease analysis shall be grab samples, at a frequency of monthly.

Oil and grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day, with each grab being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample.

If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

In the event that sampling for oil and grease once every two weeks or less frequently shows an apparent violation of the waste discharge permit 30-day average limitation (considering the results of one or two day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly, so that a true 30-day average can be computed and compliance can be determined. This provision does not apply until compliance with oil and grease limitations has been achieved according to appropriate time schedule.